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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,985	10/18/2004	Wilford Trent Yopp	81107498 (FGT 1948 PA)	5984
28549	7590	10/18/2007		
Dickinson Wright PLLC 38525 Woodward Avenue Suite 2000 Bloomfield Hills, MI 48304			EXAMINER ARTHUR JEANGLAUDE, GERTRUDE	
			ART UNIT 3661	PAPER NUMBER
			MAIL DATE 10/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/711,985	YOPP ET AL.	
	Examiner	Art Unit	
	Gertrude Arthur-Jeanglaude	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/18/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: in the specification, paragraph 1, the attorney docket information needs to be updated with the serial number or patent number of the application. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "at least one external path-tracking sensor" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stopczynski (U.S. Pub No. 20030149530).

As to claims 1, 16, 19, Stopczynski discloses a safety countermeasure system comprising a path prediction system for a vehicle comprising: a plurality of vehicle state

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sensors generating vehicle state signals (See paragraph 0024, 0028; where the vehicle sensor complex has a plurality of sensors and is considered as the vehicle state sensors); at least one tracking sensor generating a path characteristic signal(considered as sensor fusion 14); a path prediction module (considered as threat assessor 16) (See paragraph 0029) determining a plurality of predicted path estimations of a future path of the vehicle in response to data received from each of said plurality of vehicle state sensors and the at least one tracking sensor, the path prediction module determining a resultant predicted future path and a path confidence level in response to said plurality of predicted path estimations; and a controller (See paragraph 0029, 0049) performing a countermeasure in response to the resultant predicted future path and the path confidence level (See abstract, paragraph 0049). Though Stopczynski does not specifically disclose a path confidence level, it is considered that such confidence level is present for the safety countermeasure of the system.

As to claim 2, Stopczynski discloses the path confidence level corresponds with the accuracy of the resultant predicted future path (See paragraph 0049).

As to claim 3, Stopczynski discloses the plurality of vehicle state sensors comprises at least one of a vehicle speed sensor, an inertial rate sensor, a yaw rate sensor, and a steering wheel angle sensor (See paragraph 0028).

As to claim 4, Stopczynski discloses at least one external path-tracking sensor comprises a lane and road tracking sensor (See paragraph 0024, 0029).

As to claim 5, Stopczynski discloses at least one path-tracking sensor comprises at least one of a vision sensor, a camera, a global positioning sensor, a radar sensor, a

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lidar sensor, an ultrasonic sensor, an infrared sensor, and a wave-ranging device (See paragraph 0026).

As to claim 6, Stopczynski discloses an adaptive task scheduler determining processing tasks to perform, the vehicle state sensors generating the plurality of vehicle state signals in response to the processing tasks (See paragraph 0008).

As to claim 7, Stopczynski discloses an adaptive task scheduler determining processing tasks to perform, the path prediction module determining the resultant predicted future path and the path confidence level in response to the processing tasks (See paragraph 0029, 0049).

As to claims 8-15, Stopczynski disclose a path prediction module as discussed but does not specifically disclose that it assigns a high confidence level to the resultant predicted future path when a majority of the plurality of predicted path estimations are in agreement. Nor does it disclose that the path prediction module selects the resultant predicted future path from the plurality of predicted path estimations and assigns a low level of confidence to the selection. However, as best understood by examiner, the predicted future path is assigned a confidence level whether it is high or low for safety countermeasure.

As to claims 17, 18, 20, Stopczynski discloses probability estimations considered as determining a plurality of predicted path estimations comprises determining a first predicted path in response to data received from a first vehicle state sensor and determining a second predicted path in response to data received from said path-

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tracking sensor (See paragraph 0026, 0029, 0049).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Breed et al. (U.S. Patent No. 6,988,026)


Curran et al. (U.S. Patent No. 6,104,336)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gertrude Arthur-Jeanglaude whose telephone number is (571) 272-6954. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Gertrude A. Jeanglaude
Primary Examiner
AU 3661

gaj